

Abstract of the Disclosure

A contention-based network which allows real-time traffic to be assembled into multiple linked-list chains. A time separation is enforced between the various multiple chains, which are limited to a predetermined maximum number of stations that each can have in order to allow non-real-time stations to obtain timely access to the medium. One of the multiple chains may also be joined into a single chain. Blackburst contention is used to enable a chain to be reconstituted robustly from non-anticipated interruptions, such as the failure of one of its stations.

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